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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/700,511	11/05/2003	Mohan G. Kulkarni	3095-010	5922

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EXAMINER

PEZZUTO, HELEN LEE

ART UNIT PAPER NUMBER

1713

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/700,511

Applicant(s)

KULKARNI ET AL.

Examiner

Helen L. Pezzuto

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 7/28/05.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 26-45 is/are pending in the application.
- 4a) Of the above claim(s) 42-44 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 26-41 and 45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Applicant's cancellation of claims 1-25 and the addition of claims 26-45 filed in the response on 7/28/05 are acknowledged. Currently, claims 26-45 are pending in this application.

Election/Restrictions

1. Newly submitted claims 42-44 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: The newly recited film, membrane, microparticles, nanoparticles are directed to distinct inventions not presented in original claims.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 42-44 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 26-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Trieselt et al. (US-215).

US 4,897,215 to Trieselt et al. discloses a detergent composition, comprising a water-soluble copolymer. Prior art copolymer comprises 95.5 to 15 mol% of one or more monoethylenically unsaturated C₃-C₆ monocarboxylic acids (i.e. (meth)acrylic acid), 0.5 to 20 mol% of one or more co-monomers containing two or more ethylenically unsaturation sites (i.e. ethylene glycol di(meth)acrylates; cols.9-10, Table 1), up to 20 mol% of one or more hydroxyalkyl esters, and up to 30 mol% of other water-soluble monoethylenically unsaturated comonomers (col. 7, lines 15-21; working examples). Thus, anticipating the present claims.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

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4. Claims 31-40, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trieselt et al. (US-215) for the reasons set forth in the preceding paragraph and further in view of the following remarks.

As discussed, prior art teaches the optional inclusion of monoethylenically unsaturated comonomers (d) and (e) within the scope of the instant (Ax) vinyl monomer comprising single unsaturation. Suitable comonomers disclosed include, vinyl acetate, acrylonitrile, (meth)acrylamide, which encompass and at least closely analogous to the copolymer species expressed in the present dependent claims. The crosslinkable property expressed in claim 45 is expected in light of the presence of unsaturation in the resultant water-soluble copolymer. Accordingly, it would have been obvious and readily envisaged by one skilled in the art to form a water-soluble copolymer containing the respective proportions of monounsaturated and polyunsaturated monomers as taught, motivated by the reasonable expectation of success.

5. Claims 26-40, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matz et al. (US-715).

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US 6,691,715 to Matz et al. discloses a process of making water-soluble polymers, comprising quaternary ammonium monomers, up to 80 mol% of (meth)acrylic acid, and at least one multiple unsaturated co-monomers, such as ethylene glycol dimethacrylate, as well as up to 70 mol% of other monoethylenically unsaturated co-monomers inclusive of alkyl (meth)acrylates and acrylamides (col. 5, lines 42-67; cols. 17-18, claims 1-5). Accordingly, it would have been obvious and fully within the purview of one skilled in the art to select a monoethylenically unsaturated and a multiple ethylenically unsaturated monomers as taught to formulate a water-soluble polymer, motivated by the reasonable expectation of success. The UV crosslinkable property expressed in claim 45 is expected to be inherent in prior art copolymer.

6. Claims 26-41, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang (US-901).

US 2002/0110901 A1 to Huang discloses a method of preparing surface imprint composition which comprises a matrix material. Specifically, prior art matrix material is a polymerized product, which is soluble in one of the solvent/solution phase, and is derived from one or more polymerizable monomers (page 6, [0059]). Suitable

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polymerizable monomers disclosed include the instant monounsaturated vinyl monomer species expressed in claim 27, as well as the multiple unsaturated vinyl monomer species expressed in claims 28 and 41 (i.e. divinyl benzene, ethylene glycol di(meth)acrylate). Conventional polymerization methods were taught (page 6, [0065]; page 15, claims 1-3). The instant copolymer species are obvious permutations derived from the monoethylenically and polyethylenically unsaturated monomers disclosed in the reference. Accordingly, the selection of single and multiple unsaturated monomers as applicants would have been readily envisaged by one of ordinary skill in the art, motivated by the reasonable expectation to form a soluble matrix material as taught in the prior art.

Response to Arguments

Applicant's amendment and remarks filed on 7/28/05 have been fully considered but are not found to be persuasive. The crux of applicant's argument lies in the different utility of the water-soluble polymers between applicants and prior art. This is not found to be compelling as the pending claims are directed to a water-soluble copolymer A_xB_y , containing monounsaturated monomer and multiunsaturated monomer, respectively. Such water-

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soluble copolymer is clearly disclosed in the prior art references within the scope of the present claims.

Irrespective of the claimed copolymer capable of facile processing for subsequent utility, the instant water-soluble is taught in the applied references. Furthermore, prior art water-soluble copolymer is not limited to utilities asserted. Accordingly, the examiner's position is maintained.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

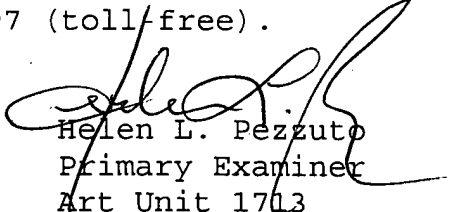
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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helen L. Pezzuto whose telephone number is (571) 272-1108. The examiner can normally be reached on 8 AM to 4 PM, Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll/free).



Helen L. Pezzuto
Primary Examiner
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